## Year 3: Light and Dark Knowledge Mat

Subject Specific Vocabulary		Working Scientifically	Sticky Knowledge
reflection	A reflection occurs when a ray of light hits a surface and bounces off.	□ Setting up simple practical enquiries, comparative and fair tests. □ Reporting on findings from enquiries, not written and orally, □ Using results to draw conclusions based on evidence. □ Making systematic and careful observations, and where appropriate making accurate measurements. □ Light source □ Object	□ Black and dark objects absorb light and heat whilst white or light objects reflect it.
shadows	A shadow is formed when an object blocks out the light. The object must be opaque or translucent to make a		
light source	shadow.  The main light source for Earth is the Sun. Some other luminous objects give out		<ul> <li>Some objects like glass are transparent which means that light can shine through them.</li> </ul>
	light, for example, torches, candles and lamps.		<ul> <li>Our main source of light on Earth comes from the Sun. A ray of light travels very fast.</li> <li>Darkness is made by blocking light from the sun or some other source of light, which makes shadows.</li> </ul>
opaque	Opaque objects do not allow light to pass through them, in most cases creating a shadow.		
refraction	It is the change of direction of a light ray as it passes through different surfaces, for example, from air to water.		
periscope	A periscope is an instrument people use to look at things from a hidden position.		☐ The Sun and other stars, fires, torches and lamps all make their own light and so are examples of sources of light.
nocturnal	If something is nocturnal, it belongs to or is active at night. For example, bats and owls.		
orbits	An orbit is a repeating path that one celestial body takes around another.		☐ A mirror is not a source of light, it merely reflects light. Similarly, the Moon is not a source of light
convex	Convex lenses, also called positive lenses, are lenses that curve outward		because it reflects the light from the Sun.
concave	A concave lens is one where the centre of the lens is thinner than the edges.		☐ Some animals are nocturnal. They are awake at night and can see very well in the dark. Our eyes aren't designed to see at night.